

UNITED STATES PACIFIC FLEET  
AIR FORCE  
AIRBORNE EARLY WARNING SQUADRON ONE (VW-1)

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10/SWD:ml  
FF12/VW-1  
A9-1  
Ser 041

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15 FEB 1953

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From: Commanding Officer  
To: Office of the Chief of Naval Operations (Aviation History and  
Research Section)  
Subj: Historical Report of Airborne Early Warning Squadron ONE (VW-1)  
covering period of 18 June 1952 through 31 December 1952; forwarding of  
Ref: (a) OpNav Instruction 5750.2  
Encl: (1) Historical Report of Airborne Early Warning Squadron ONE (VW-1)  
covering period of 18 June 1952 through 31 December 1952  
1. In accordance with reference (a), enclosure (1) is forwarded herewith.

  
E. A. LUEHMAN  
Acting

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AIRBORNE EARLY WARNING SQUADRON ONE (VW-1)

HISTORICAL REPORT

18 JUNE 1952 THROUGH 31 DECEMBER 1952

HISTORICAL OFFICER: LIEUTENANT (b) (6) USN

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## CHRONOLOGY

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- 18 June 1952 - CDR F.P. ANDERSON, USN, assumed command upon commissioning of VW-1 and the squadron reported to ComFAirHawaii for Operational and Administrative control. The squadron was located at NAS, Barber's Point, Oahu, Territory of Hawaii. There were no detachments and no geographic area of responsibility assigned.
- 17-18-19 Sept 1952 - Participated in search for pilot of Fleet All Weather Flight School, Pacific, who crashed in channel between Molakai Island and Lanai Island. The search was coordinated by Rescue Pearl and the results negative.
- 31 Oct 1952 - Flight to Midway Island carrying Mr. (b) (6) of the Atomic Energy commission as a survey flight in connection with atomic experiments in the Central Pacific. The flight returned on 1 November 1952.
- 5 Nov 1952 - Second flight to Midway Island carrying Mr. (b) (6) on a survey in connection with atomic experiments.
- 12-13-14 Dec 1952 - Acted as Assistant Chief Inspector in an Operational Readiness Inspection of VP-22
- 16 Dec 1952 - Administrative/Material Inspection of the squadron was conducted by ComFAirHawaii with an adjective grade of excellent being assigned.
- 19 Dec 1952 - A Constellation type aircraft (VW-1) BuNo. 124438 was delivered to the squadron as a transfer from VW-2. LT. (b) (6) USN, of VW-2 delivered the aircraft.

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## NARRATIVE

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### I. SQUADRON UTILIZATION

Airborne Early Warning Squadron ONE (VW-1) was commissioned at NAS, Barber's Point, at 0930W on 18 June 1952 with CDR F.P. ANDERSON, USN, Commanding, and reported to Commander Fleet Air Hawaii for Operational and Administrative control. Aircraft aboard at the time of commissioning were four PB-1W's, BuNos 77137, 77138, 77226, and 77231. The personnel aboard for commissioning included 34 officers and 102 enlisted men.

This is the only Airborne Early Warning Squadron in the Pacific Fleet and was assigned the primary mission by CNO<sup>1</sup> of providing Airborne Early Warning and Airborne CIC services (including air controlled intercepts) to the forces afloat and ashore as directed with secondary missions of Scouting, ASW Search, ECM Search, and Weather Reconnaissance. Although the squadron was new in name, the personnel and aircraft had long worked as a unit, being a direct descendent of VC-11 Miramar Detachment and prior to that VP-51. This previous experience as a unit greatly facilitated the transformation to an operating squadron.

The squadron was immediately made a member of the Hawaiian Defense Organization utilizing the capabilities of early warning to extend the defense perimeter established by the two local Ground Controlled Intercept Stations. This membership was on an alert basis with the squadron to have a standby aircraft and crew ready for launch, on a one hour notice, around the clock.

1. OpNav INSTRUCTION 5440.39 of 16 June 1952

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The defense net is alerted weekly for drill, normally from 0700 to 1200, to track and identify all aircraft inbound to the island of Oahu. During a period of this length there is an average of forty detections and identifications by the two GCI stations and one airborne early warning aircraft.

The local commands also began immediate utilization of the squadron in other local exercises. These including ASW problems, mining exercises, and approach exercises. The latter are noteworthy in that the squadron frequently operated for both the "defense" and "enemy" forces simultaneously. The squadron aircraft working with the "defense" performing search and tracking, early warning, and vector control of strike aircraft while the squadron aircraft working with the "enemy" performed ASW, early warning, and CAP control.

The first local operational exercise was on 12-13 July 1952. The VW-1 mission was to work in conjunction with Marine Ground Control Interceptor Squadron TWO (MGCIIS-2) and MAG 13 in detection and interception of anticipated strikes on MCAS, Kaneohe. Local P2V squadrons were to carry out these strikes. The P2V tactics in the past had been to approach low on the water (50-100 feet) and escape shore radar detection until it was too late for interception. The local commands were agreeably surprised and the P2V pilots much chagrined when Marine interceptors, under control of a VW-1 aircraft, intercepted the attack aircraft at 100 miles (the limit of the exercise area) and flew wing on them to the target area.

The next operational exercise was an approach exercise against the USS BADOENG STRAITS on 23, 24, and 25 July 1952. The squadron mission was to

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control attack aircraft from the island against the approaching force. The squadron also was assigned the mission of search and tracking after a local P2V squadron failed to find the "enemy" force. VW-1 established contact with the force and successfully conducted strikes against same.

VW-1 participated in an approach exercise on 15, 16, and 17 August 1952 against the USS KEARSARGE; a mining exercise on 20, 30, and 31 August 1952 opposing P2V's and carrier aircraft mining Kaneohe Bay; an amphibious and reconnaissance raiding exercise from 22 through 29 August 1952; an approach exercise with the USS ORISKANY on 20 September 1952; an ASW exercise on 21 and 22 October 1952; an ASW operation against a mining submarine on 24 November 1952; an early warning exercise with the USS VALLEY FORGE on 12 December 1952; and an approach exercise with the USS PHILIPPINE SEA on 19 and 20 December 1952.

During the above operational exercises VW-1 performed at various times as a search and tracking unit, as airborne early warning, as airborne CIC with CAP control, as controllers on strikes, as the hunter on ASW hunter/killer team and as VHF and radar relay unit. Perhaps one of the greatest values of these exercises was the training afforded ships proceeding to the Korean area in the utilization of airborne early warning services.

The squadron carried on its own training program during this time with the flight time being divided approximately fifty-fifty between pilot training

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flights and ACIC flights. Due to a considerable influx of new officer personnel, intensive training was required to bring the ACIC training up to accreditable standards. This was accomplished through the following general types of flights: (a) familiarization flights; (b) basic air to surface flights utilizing two PB-1W's alternating vector control against surface targets of opportunity; and (c) air to air intercept flights utilizing two PB-1W's alternately intercepting each other with a CAP aircraft (usually a JD) furnished by local commands. The pilot proficiency training was accomplished in a manner similar to any other squadron training schedule.

II. ELECTRONICS

The electronics problem in VW-1 is rather unusual in that carrying out the primary mission ultimately depends upon the proper functioning of the airborne early warning radar system.

Since commissioning in June, much has been done to build up adequate maintenance facilities to meet the electronics requirements of the squadron.

Adequate shop space for the radio, radar and electric shops was allotted in building 108 in July. The radio test bench installations for all supported equipments were installed in the radio shop and, since shop power facilities had already been provided by FASRON 117, this shop was able to maintain all communication and navigational equipment by the end of July.

However, no shop power facilities or test bench positions were available for the radar and electric shops. Radar maintenance was performed temporarily

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with power from engine driven auxiliary power units. Planning for permanent power facilities, test bench installations and shop arrangement for the radar and electric shops became necessary and this planning was based on present and future requirements which included PB-1W, WV-1 and WV-2 type aircraft. In terms of radar maintenance, this necessitated planning for AN/APS-20A, AN/APS-20B, and AN/APS-45 types of radar with associated equipment such as AN/APA-53, AN/APA-56, AN/APA-57, AN/ARR-27, AN/ART-26 and AN/ART-28, as well as Mark 10 IFF and several ECM receiver-analyzing equipments. Based on power requirements for the above, a shop power plan was submitted to Public Works, NAS, Barber's Point, in July. This plan<sup>1</sup> received authorization from BuAer and the radar power shed was completed in December. Power requirements of 30 kva, 120 volt, 3 phase, 400 cycle and 600 amperes at 28 volts direct current as well as 400 cycle single phase and 60 cycle single phase were provided for in the plan and complete shop distribution of these four types of power was accomplished. Power machinery was furnished by VW-1, while all other equipment such as conduit switch boxes and circuit breakers was obtained from an abandoned area on the station and reused. It is worthy of note that this Public Works project was carried out mainly by VW-1 electronics personnel with only one Public Works Electrician on the job. This procedure, coupled with use of salvaged materials, resulted in extremely low actual cost to the Navy. While the above work project was under way, electronics work benches were obtained through normal supply channels and all radar equipment installed to maintain presently supported equipment.

1. CO, NAS, Barber's Point, ltr HA70/A2 ser 2765 of 16 July 1952, to the Chief, Bureau of Aeronautics

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By the end of December, the radar shop was adequate for present and future maintenance requirements.

The electricians also were required to build up a complete shop, having only an assigned space to begin with. The usual equipment such as benches, a generator test stand and necessary tools were obtained through normal supply channels. In addition to installing the above electrical maintenance facilities, the electricians exhibited outstanding ability and initiative by building up special test positions which are capable of bench testing such units as the flux gate compass, generators, inverters, both AC and DC voltage regulation systems and other units and instruments.

The maintenance problem on the airborne early warning radar system proved rather unusual in that the entire AN/APA-53 ACIC system is obsolescent and neither major components nor parts peculiar to this equipment are available in the Naval Supply System. However, when necessary, parts were manufactured by FASRON 117 and the equipment was satisfactorily maintained.

The number of electronics personnel on board rose from thirty-five to ninety-five during the last half of 1952. Some of the equipment on hand was new to many of these men, hence, an adequate training program in all phases of the VW-1 electronics situation was instituted, and, by the end of the year, was operating smoothly.

### III. PROBLEMS AND POLICIES

This being the only squadron of its type in the Pacific Fleet, there were naturally a number of problems peculiar to the squadron work. The airplane itself

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is a relatively scarce type thereby causing many problems in setting up a proper source of support and supply. However, these problems, with the exception of the scarcity or non-existence of replacement parts, were the same as for setting up the support of any other aircraft and will not be delved into.

The problem of training and utilization was very keenly felt however. Until the arrival of the squadron on the scene very few of the operational commands had any personal experience with multi-engine airborne early warning. The information as to capabilities and limitations was available in the very complete OPDEV Force Evaluation Reports<sup>1</sup> of the APS-20 airborne early warning system. However, as is known, writing something on paper will not convey near the impression that will be gained by actually seeing the described article function. The local aviation commands had been working with P2V squadrons in the past and were reluctant to see that an "old B-17" could replace this new airplane in many defensive missions. The first four months of utilization in local operations seemed to indicate that VW-1 was being written into the Operations Orders merely because the aircraft were available. This resulted in VW-1 being assigned missions which did not utilize their capabilities to the fullest; such as assigning a mission of airborne early warning but a reluctance to assign CAP, or assignment to ASW search without a "killer" aircraft or assignment at night against snorkel equipped subs with a killer aircraft equipped only with flares for illumination. The latter

1. OPDEVFOR Reports on Project OP/V26/F42-1

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situation being mitigated by the fact that there is a great shortage of search light equipped aircraft and, at times, no such aircraft in the area. At times the squadron was assigned missions which required services that the aircraft limitations made practically impossible to perform. In connection with the latter the squadron has frequently been assigned operating areas close to shore in a high target density area rather than being utilized well at sea. The rapid air movement of the aircraft precludes really successful work in high target density areas. These areas can be much better covered by shore and shipboard stations.

Definite progress is being made in causing awareness of the squadron's existence, and in causing better utilization, by several obvious means. One, of course, is by demonstration to the people concerned by conversation, giving "rides" and by doing jobs as assigned. Another, as mentioned previously in this narrative, is working with all surface units, especially carriers, which pass through Hawaii on their way to the Korean theatre. Another is by a letter, Appendix I, to the squadron operational commander. There have been cases of carriers which had never had their relay terminal equipment working until they performed exercises with this squadron.

On 19 December 1952, a Constellation (WV-1) BuNo. 124438, was delivered on board as a transfer from Airborne Early Warning Squadron TWO (VW-2). This aircraft greatly augments the squadron potential. For the period of this writing the squadron had only test flown the aircraft and no operational evaluation can be given. However, the WV-1 characteristics are well outlined in other publications<sup>1</sup> and it is obvious that the squadron capabilities will go up.

1. U.S. Naval Aviation Electronics Digest of Sept 1949

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At the ending of the period covering this report it is felt that VW-1 has assumed a strong and permanent position in the organization of local command and the Pacific Fleet.

The other major problem encountered by the squadron is CIC officer personnel. If the squadron were up to allowance<sup>1</sup>, the problem would be solved. As of 31 December 1952, there were only six non-pilot officers aboard, of which three had been to CIC school; thus, the CIC crews were composed mostly of pilots. In that being a CIC officer and being a pilot each, in themselves, requires a great deal of training, the problem becomes severe when one man has to train for both. A solution, and the one which was utilized, was to assign all officers to crews by name in the billets of PPC, co-pilot, four CIC officers, and a navigator. Pilot training for those designated for CIC had to become secondary. This then posed the double problem of morale (all the officers with wings naturally wanting to be pilots) and lethargy on the part of some pilots assigned to CIC. The only true solution will be to increase the percentage of non-pilot CIC officers in the squadron. In view of the facts, the squadron instituted the policy of all pilots qualifying in CIC and a rotation between the cockpit and CIC is conducted, as far as is practicable, on all flights.

Although the problem may not be peculiar only to this squadron, the filling of the officer compliment has been slow and painful. Letters<sup>2</sup> have been written to higher authority emphasizing the urgent need of qualified officers. At a cursory

1. BuPers restricted ltr Pers-A1 332-hm ser L5862 of 16 June 1952
2. CO, AEWRON ONE Conf ltr ser 013 of 8 Aug 1952 to Chief of Naval Operations

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glance, it would seem that forty-eight officers would be more than adequate for five airplanes (if all were highly qualified in CIC work it would be). However, when consideration is given to the requirements of seven officers in a PB-1W operational flight and from eight to fourteen in a WV-1 operational flight it can be readily seen that periods of heavy flying call for an excessive load on some officers. This load was emphasized for the experienced officers in that the squadron was immediately employed operationally which required their services in the air on all operational and all training flights as well as the services of their administrative experience which was necessary in the multitudinous work of organizing a new squadron. Due to the limited number of experienced CIC officers the operational flying seriously hampered the basic CIC training which is required to expeditiously qualify new officers in CIC. This problem will be eased by the filling of the officer allowance and by accomplishment of the present training program.

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